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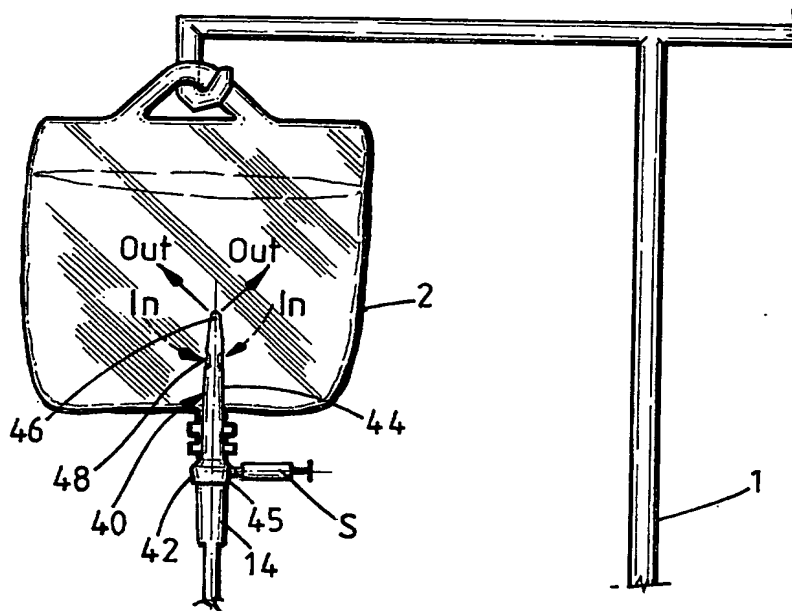
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[Continued on next page]

(54) Title: INFUSION APPARATUS FOR INFUSION BAGS



(57) Abstract: A modified giving set cap (40) to enable medication to be inserted into an intravenous bag (2) through the cap itself via a needleless syringe (5). The cap has a main channel (50) for delivering fluid from the bag/container (2) to a drip chamber (14) and a subsidiary channel for the delivery of a different material to the bag/container, the inlet (48) for delivering fluid from the bag through the main channel to the chamber being spaced at a sufficient distance from an outlet (46) of the subsidiary channel to allow mixing of the material with the fluid prior to delivery to the chamber. The inlet (45) of the subsidiary channel is adapted to receive a needleless syringe.



— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:  
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# INTERNATIONAL SEARCH REPORT

Intern Application No  
PCT/GB 03/05348

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61M5/162 A61M5/14

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61M A61J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/115981 A1 (WESSMAN GORAN) 22 August 2002 (2002-08-22)	1,5-16, 27-29
Y	the whole document	17-26
Y	US 3 359 977 A (BURKE GEORGE K) 26 December 1967 (1967-12-26)	17-26
Y	the whole document	
A	US 4 623 343 A (THOMPSON THOMAS C) 18 November 1986 (1986-11-18)	1
A	column 3, line 11-19; figure 1	
A	US 3 484 849 A (MAENZ HERBERT ET AL) 16 December 1969 (1969-12-16)	1
A	column 2, line 47-53; figure 1	
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

**\* Special categories of cited documents:**

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

Inter  
Application No  
PCT/GB 03/05348

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 858 580 A (OGLE ROBERT W) 7 January 1975 (1975-01-07) column 3, line 4-19; figure 8 ---	1
X	US 3 662 752 A (YOKOYAMA KOUSOU) 16 May 1972 (1972-05-16) the whole document ---	2-4, 30-38
X	US 4 787 898 A (RAINES KENNETH C) 29 November 1988 (1988-11-29) abstract; figure 5 ---	2-4, 30-38
X	US 4 857 068 A (KAHN PAUL) 15 August 1989 (1989-08-15) figures 1-3 -----	2, 3, 30, 31, 33-38

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB 03/05348

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

**1. Claims: 1, 5-29**

Claims 1, 5-28 and 29 essentially define a giving set cap comprising

- 1) a delivery tube with a main channel for delivering fluid from a first to a second vessel,
- 2) a subsidiary channel for the delivery of a different material to the first or second vessel, wherein
- 3) an inlet for delivering fluid from the first or second vessel through the main channel is spaced at a sufficient distance from an outlet of the subsidiary channel.

**2. Claims: 2-4, 30-38**

Claims 2-4 and 30-38 essentially define a giving set cap comprising

- 1) a delivery tube with a main channel for delivering fluid from a first to a second vessel,
- 2) a subsidiary channel for the delivery of a different material to the first or second vessel, wherein
- 3) an inlet of the subsidiary channel is adapted to receive a needleless syringe.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/05348

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